LISTING OF THE CLAIMS

The following listing, if entered, replaces all prior versions of the claims in the present application.

1.   (Previously Presented) A network device comprising:

an output port;

a control unit coupled to the output port;

a queue configured to store a copy of a packet forwarded to the output port; and

a memory coupled to the output port,

> wherein the output port is configured to output packets for transmission
>> via a network tunnel,

> wherein the network tunnel aggregates a plurality of flows,

> wherein the memory is configured to store information,

> wherein the information identifies packets which have been forwarded via
>> the network tunnel, and

> wherein the queue indicates how many packets in each of the flows are
>> outstanding within the network tunnel.

2-3.   (Canceled)

4.   (Previously Presented) The network device of claim 1, wherein

the memory is comprised in the control unit; and

the control unit is configured to update the information in the memory to indicate

> that the packet was sent via the network tunnel, in response to forwarding

> the packet to the output port.

5.   (Previously Presented) The network device of claim 1, wherein

the control unit is configured to send a copy of the packet to a loopback port with

which the queue is associated, and

the copy of the packet is stored in the queue in response to the packet being

receiving by the loopback port.

6.   (Previously Presented) The network device of claim 1, wherein

the control unit is configured to identify a flow of the plurality of flows being

aggregated for transmission via the network tunnel,

the flow comprises a particular packet, and

the control unit is configured to select whether the particular packet is admitted to

the network tunnel based on which flow comprises the particular packet.

7.   (Original) The network device of claim 6, wherein

the control unit is configured to drop the particular packet if the flow currently has

a threshold number of packets stored in the queue; and

the control unit is configured to admit the particular packet for transmission via

the network tunnel if the flow currently has fewer than the threshold

number of packets stored in the queue.

8.   (Previously Presented) The network device of claim 1, wherein

the control unit is configured to forward the copy of the packet stored in the queue

to the output port for retransmission via the network tunnel if the packet is

dropped in the network tunnel.

9.   (Original) The network device of claim 8, wherein

the control unit is configured to determine that the packet was dropped in the

network tunnel in response to the information stored in the memory and in

response to information received from another network device.

10.   (Original) The network device of claim 8, wherein

the control unit is configured to send the copy of the packet stored in the queue

via the network tunnel if the copy of the packet is dropped in the network

tunnel.

11.   (Previously Presented) The network device of claim 1, wherein

the control unit is configured to control a usage level of the queue by adjusting a

rate at which packets are removed from the queue, and

the control unit is configured to admit a particular packet for transmission via the

network tunnel based on the usage level of the queue.

12.   (Original) The network device of claim 11, wherein

the control unit is configured to reduce the rate at which packets are removed

from the queue if the usage level of the queue exceeds a threshold usage

level.

13.   (Previously Presented) The network device of claim 1, wherein

the control unit is configured to forward a new packet to the output port for

transmission via the network tunnel if no packets have been transmitted

via the network tunnel for a period of time.

14-28. (Canceled)

29.   (Previously Presented) A method comprising:

sending a packet via a network tunnel from a first network device, wherein the

network tunnel aggregates a plurality of flows;

storing a copy of the packet in a queue, in response to the packet being sent via

the network tunnel, wherein the queue indicates how many packets in each

of the flows are outstanding within the network tunnel; and

determining whether the packet is dropped in the network tunnel.

30.   (Canceled)

31.   (Previously Presented) The method of claim 29, wherein the storing the copy of packet in the queue comprises:

   sending the copy of the packet to a loopback port of the first network

     device, wherein the loopback port is associated with the queue.

32.   (Previously Presented) The method of claim 29, further comprising:

removing the copy of the packet from the queue if the determining whether the

   packet is dropped in the network tunnel determines that the packet was

   successfully received at an egress of the network tunnel.

33.   (Previously Presented) The method of claim 29, further comprising:

sending the copy of the packet from the queue via the network tunnel if the packet

   is dropped in the network tunnel.

34.   (Previously Presented) The method of claim 29, further comprising:

identifying a flow of the plurality of flows being aggregated for transmission via

   the network tunnel, wherein the flow comprises a particular packet; and

selecting whether the particular packet is admitted to the network tunnel based on

   which flow comprises the particular packet.

35.   (Previously Presented) The method of claim 29, further comprising:

controlling a usage level of the queue; and

admitting a particular packet for transmission via the network tunnel dependent

   on the usage level of the queue, wherein the controlling the usage level of

   the queue comprises: adjusting a rate at which packets are removed from

   the queue.

36.   (Original) The method of claim 29, further comprising:

sending information to the first network device, wherein the information indicates

   whether the packet was dropped in the network tunnel.

37.   (Previously Presented) The method of claim 36, further comprising:

storing the packet in an egress queue if the packet is received out of sequence by a

      second network device.

38.   (Previously Presented) The method of claim 37, further comprising:

removing the packet from the egress queue in response to receiving at least one

      packet via the network tunnel, wherein

      the at least one packet is earlier in a sequence of packets than the packet;

          and

forwarding the packet in response to the removing the packet from the queue.

39-47. (Canceled)

48.   (Previously Presented) A system comprising:

means for sending a packet via a network tunnel from a first network device,

      wherein the network tunnel aggregates a plurality of flows;

means for storing a copy of the packet in a queue, in response to the packet being

      sent via the network tunnel, wherein the queue indicates how many

      packets in each of the flows are outstanding within the network tunnel;

      and

means for determining whether the packet is dropped in the network tunnel.

49.   (Canceled)

50.   (Previously Presented) The system of claim 48, wherein storing the copy

of packet in the queue comprises:

      sending the copy of the packet via a loopback port associated with the

         queue.

51.   (Previously Presented) The system of claim 48, further comprising:

means for removing the copy of the packet from the queue if it is determined that

      the packet was successfully received at an egress of the network tunnel.

52.   (Previously Presented) The system of claim 48, further comprising:

means for sending the copy of the packet from the queue via the network tunnel if
        the packet is dropped in the network tunnel.

53.   (Previously Presented) The system of claim 48, further comprising:

means for identifying a flow of the plurality of flows being aggregated for
        transmission via the network tunnel, wherein the flow comprises a
        particular packet; and

means for selecting whether the particular packet is admitted to the network
        tunnel based on the flow in which the particular packet is comprised.

54.   (Previously Presented) The system of claim 48, further comprising:

means for controlling a usage level of the queue; and

means for admitting a particular packet for transmission via the network tunnel
        dependent on the usage level of the queue, wherein controlling the usage
        level of the queue comprises:
        adjusting a rate at which packets are removed from the queue.

55-59. (Canceled)

60.   (Previously Presented) A computer readable medium comprising program
instructions executable to:

send a packet via a network tunnel from a first network device, wherein the
        network tunnel aggregates a plurality of flows;

store a copy of the packet in a queue, in response to the packet being sent via the
        network tunnel, wherein the queue indicates how many packets in each of
        the flows are outstanding within the network tunnel; and

determine whether the packet is dropped in the network tunnel.

61.   (Canceled)

62.   (Previously Presented) The computer readable medium of claim 60, wherein storing the copy of packet in the queue comprises:

sending the copy of the packet to a loopback port associated with the queue.

63.   (Previously Presented) The computer readable medium of claim 60, wherein the program instructions are further executable to:

remove the copy of the packet from the queue if it is determined that the packet was successfully received at an egress of the network tunnel.

64.   (Previously Presented) The computer readable medium of claim 60, wherein the program instructions are further executable to:

send the copy of the packet from the queue via the network tunnel if the packet is dropped in the network tunnel.

65.   (Previously Presented) The computer readable medium of claim 60, wherein the program instructions are further executable to:

identify a flow of the plurality of flows being aggregated for transmission via the network tunnel, wherein the flow comprises a particular packet; and

select whether the particular packet is admitted to the network tunnel based on the flow in which the particular packet is comprised.

66.   (Previously Presented) The computer readable medium of claim 60, wherein the program instructions are further executable to:

control a usage level of the queue; and

admit a particular packet for transmission via the network tunnel dependent on the usage level of the queue, wherein

controlling the usage level of the queue comprises:

adjusting a rate at which packets are removed from the queue.

67-71. (Withdrawn)